



Product designation	Power contactor		
Product type designation	BFK12		
<b>Contact characteristics</b>			
Number of poles	nr.	3	
Rated insulation voltage $U_i$	V	690	
Rated impulse withstand voltage $U_{imp}$	kV	6	
Operating frequency	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
	Conventional free air thermal current $I_{th}$	A	28
Rated operational power AC6b ( $T \leq 40^\circ C$ )	230V	kvar	7
	400V	kvar	12.5
	500V	kvar	14
	690V	kvar	16
	Short-time allowable current for 10s (IEC/EN60947-1)	A	150
Protection fuse	gG (IEC)	A	25
	Resistance per pole (average value)	m $\Omega$	2.5
Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	lbft	1.1
	max	lbft	1.5
	Tightening torque for coil terminal	min	Nm
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
max number of wires simultaneously connectable	nr.	2	
Conductor section	AWG	min	16
		max	10
Flexible w/o lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	6
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Power terminal protection according to IEC/EN 60529	IP20 when wired		
<b>Auxiliary contact characteristics</b>			

Type of contact			1 NO
Thermal current I <sub>th</sub>		A	10
IEC/EN 60947-5-1 designation			A600 - P600
Operating current AC15	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12	110V	A	5.7
Operating current DC13	24V	A	5.7
	48V	A	2.9
	60V	A	2.3
	110V	A	Screw / DIN rail 35mm
	125V	A	0.6
	220V	A	0.2
	600V	A	1.2

**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m 3000

Operating position

normal allowable      vertical plan  
±30°

Mounting

Screw / DIN rail  
35mm

Weight

g 0.418

**Operations**

Mechanical life

Cycles 20000000

Electrical life

Cycles 400000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

rated load	Cicli	400000
mechanical load	Cicli	20000000

EMC compatibility

yes

**AC coil operating**

AC operating voltage

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	0.8
max	%Us	1.1

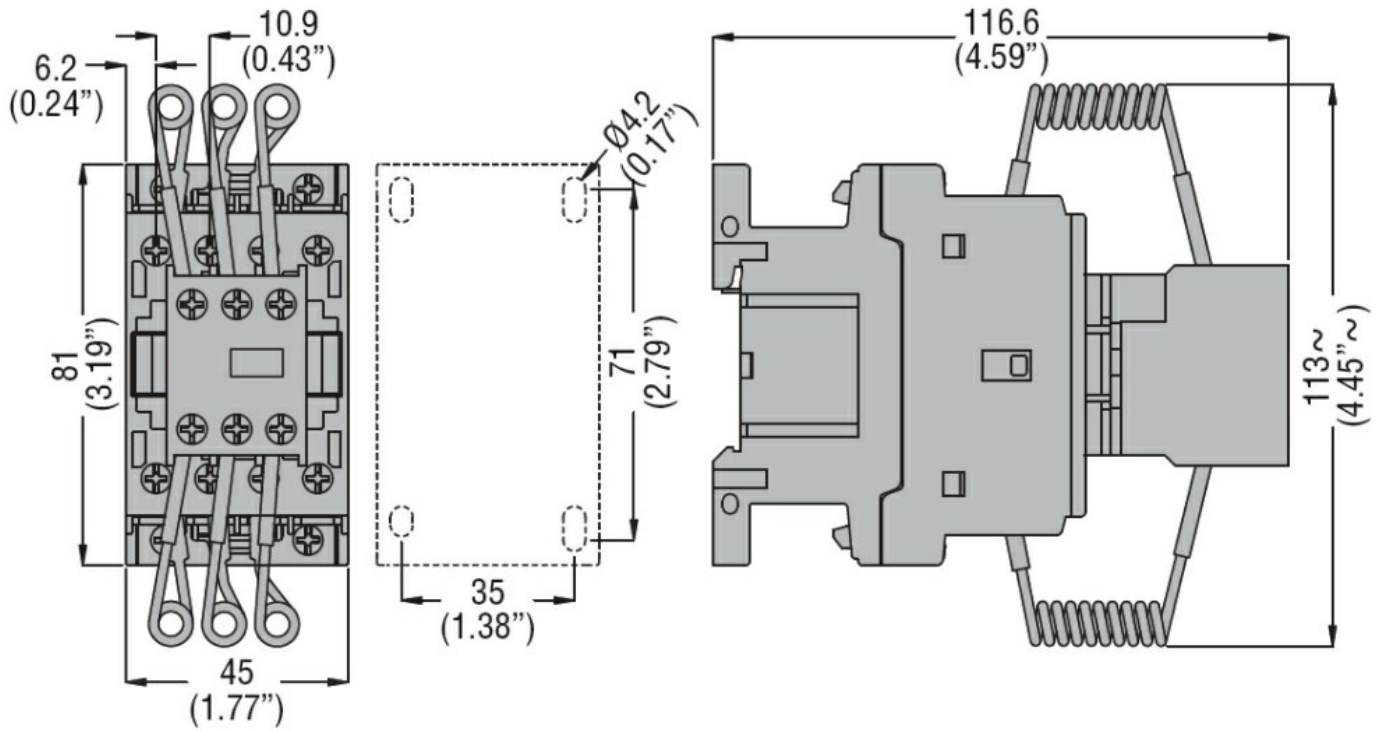
drop-out

min	%Us	0.2
max	%Us	0.55

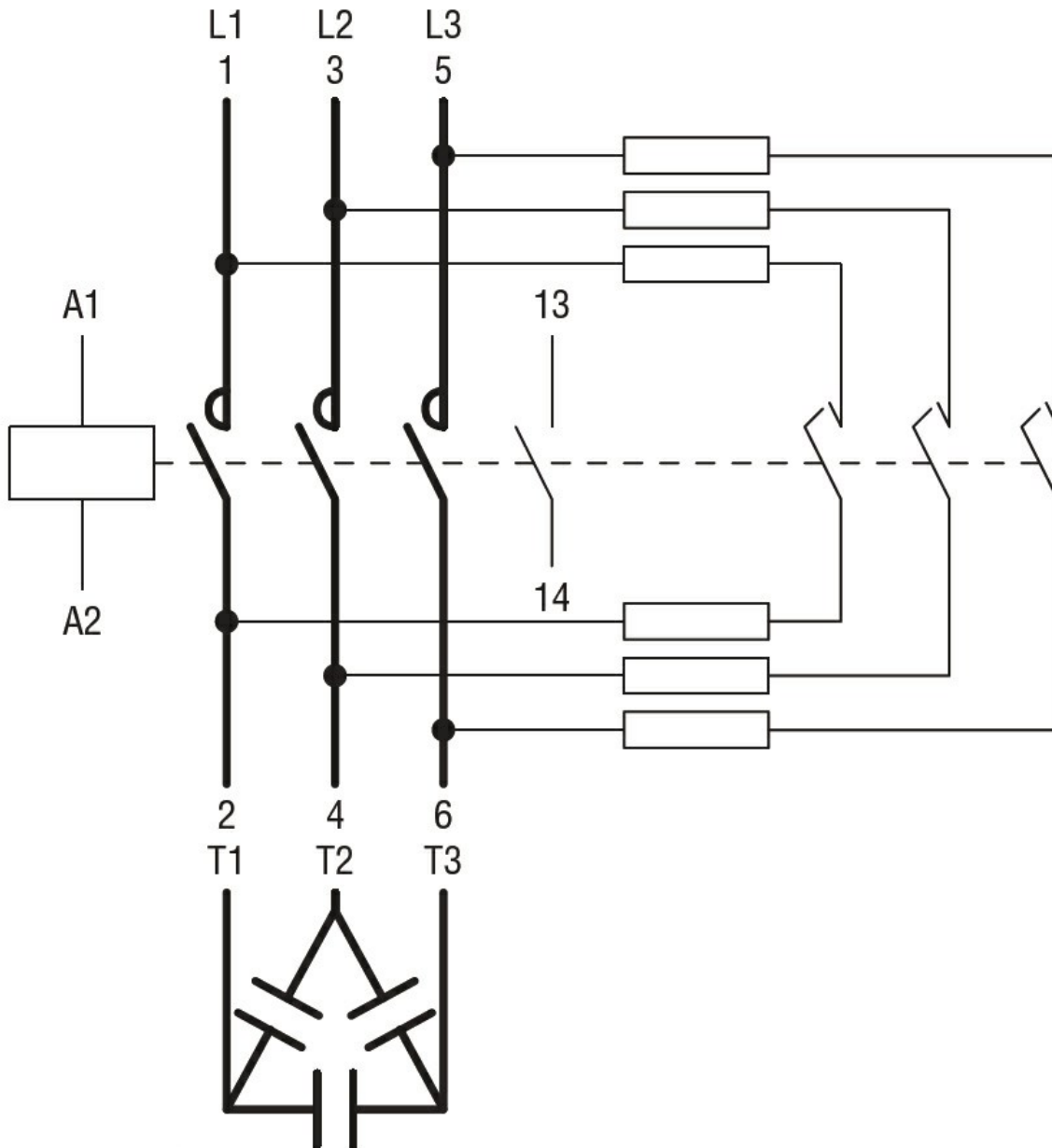
of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	0.85
max	%Us	1.1

	drop-out			
		min	%Us	0.2
		max	%Us	0.55
of 60Hz coil powered at 60Hz				
	pick-up			
		min	%Us	0.8
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
<b>AC operating voltage</b>				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	70
		holding	VA	6.5
of 60Hz coil powered at 60Hz				
		in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤20°C 50Hz			W	2.5
<b>Max cycles frequency</b>				
Mechanical operations			Cycles/h	3600
<b>Operating times</b>				
Average time for Us control				
	in AC			
	Closing NO			
		min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
<b>UL technical data</b>				
Yielded mechanical performance				
	for single-phase AC motor			
		at 110/120V	hp	1
Contact rating of auxiliary contacts according to UL				A600 - P600
<b>Other features</b>				
Pollution degree				3
<b>Dimensions</b>				



Wiring diagrams



**Certifications and compliance**

Certifications

- CSA C22.2 n° 60947-1
- CSA C22.2 n° 60947-4-1
- IEC/EN 60947-1
- IEC/EN 60947-4-1
- UL 60947-1
- UL 60947-4-1

Compliance

- CCC
- cULus
- EAC

**ETIM 6 classification**

EC000066 - Power contactor, AC switching